

## ABSTRACT

The present invention relates to a hydrogen storage container containing at least an hydrogen storage composition and hydrogen, the hydrogen including solid state hydrogen and gaseous hydrogen, the hydrogen storage composition including at least a portion of the solid state hydrogen and having an high equilibrium plateau pressure, wherein the solid state hydrogen defines at least 5% by weight of the total weight of the contained hydrogen, and wherein the gaseous hydrogen has a pressure greater than the high equilibrium plateau pressure and defines at least 5% by weight of the total weight of the contained hydrogen.